

Mulching (acre)

Definition

Applying plant residues or other suitable materials not produced on the site to the soil surface.

Purpose

To conserve moisture; prevent surface compaction or crusting; reduce runoff and erosion; control weeds; and help establish plant cover.

Conditions where practice applies

On soils subject to erosion on which low-residue-producing crops, such as grapes and small fruits, are grown; on critical areas; and on soils that have a low infiltration rate.

Planning considerations

Water Quantity

1. Effects on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, and transpiration.

2. Variability of the practice's effects caused by seasonal weather variations.

3. Effects of increased cover on soil moisture.

4. Potential for changes in plant growth and transpiration because of changes in the soil water volume.

Water Quality

1. Effects on erosion and the movement of sediment and soluble and sediment-attached substances carried by runoff.

2. Effects on the visual quality of downstream water resources.

Specifications guide

Amount of mulch and the type of management needed under different conditions.

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U.S. DEPARTMENT OF AGRICULTURE
Soil Conservation Service

Technical Guide
Section IV
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MULCHING

(To Conserve Moisture and Control Weeds
in Nurseries, Orchards, and Truck Crops)

Specifications Guide

Mulching Materials:

Use one of the materials given below and apply at thickness indicated.

| <u>Material</u> | <u>Depth</u> |
|--|---------------------|
| 1. Grain straw or grass hay | 6" to 10" |
| 2. Pine needles | 1" to 6" |
| 3. Wood waste (sawdust, bark, chips) | 1" to 8" |
| 4. Shredded residues (crops, leaves, etc.) | 1" to 8" |
| 5. Completely cover area when using black polyethylene film and hold in place by placing soil on outer edge. | |

When using organic mulches, apply 10-15 pounds of nitrogen in addition to the normal amount needed for plant growth to offset tie-up of nitrogen by decomposition of mulch.